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THE USE OF MODERN IT IN THE MANAGEMENT OF FOOD INDUSTRY ENTERPRISES

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This paper examines the role of modern information technologies in improving the efficiency of management in the food industry. It outlines the characteristics of production management and the importance of ERP, CRM and HRM systems, business analytics, the Internet of Things (IoT), cloud solutions and artificial intelligence. Their impact on process integration, resource optimisation, product quality assurance and business competitiveness is emphasised.

Modern food industry enterprises operate in an extremely competitive environment, where the speed of decision-making, product quality and resource efficiency determine their competitiveness. Information technology has become a key driver of development, as it enables the integration of production and organisational processes, ensures management transparency and enhances business efficiency.

Production management in the food industry has a number of distinctive features. Firstly, it is subject to stringent product quality requirements, as food products have a direct impact on consumers' health. Secondly, production is often subject to seasonality and fluctuations in demand, which necessitates flexible planning systems. Thirdly, the food industry is characterised by complex supply chains, which include the procurement of raw materials, their processing, transport and the sale of finished products. All these processes require effective coordination, which is provided by modern information technologies.

ERP systems have become an essential management tool for businesses in the food industry. They enable the integration of financial, production and logistics processes into a single information platform. This provides management with up-to-date data for decision-making, reduces the risk of errors and improves the efficiency of resource utilisation. CRM systems help businesses better understand customer needs, create personalised offers and increase customer loyalty. HRM systems automate personnel management, which is particularly important for large enterprises with a large workforce.

The use of business intelligence (BI) systems is a key area. They enable the analysis of large datasets, the identification of hidden patterns, and the forecasting of future trends. This is particularly relevant to the food industry, where demand for products depends on a range of factors—economic, social and climatic. The use of BI analytics enables businesses to respond quickly to market changes and make strategic decisions.

There are numerous examples of the use of information technology in the food industry. For example, Coca-Cola actively uses big data to forecast demand and optimise supply chains. Supermarket chains use artificial intelligence systems to manage stock and reduce food waste. Ukrainian companies are also implementing

electronic document management and quality control automation systems, enabling them to enhance their competitiveness in both domestic and international markets.

The use of the Internet of Things (IoT) in the food industry deserves special attention. Sensors installed on production equipment allow its condition to be monitored in real time, enabling the prediction of potential breakdowns and the planning of maintenance. This reduces the risk of downtime and improves production efficiency. Furthermore, IoT technologies are used to monitor the storage and transport conditions of food products, ensuring their quality and safety.

Cloud technologies also play a vital role in modern management. They enable businesses to store large volumes of data, provide access to it from anywhere in the world, and facilitate collaboration among staff. Cloud solutions reduce IT infrastructure costs and offer flexibility when scaling a business.

Artificial intelligence is becoming one of the most promising areas of development in information technology within the food industry. It is used to forecast demand, optimise production processes, manage stock levels and ensure product quality control. Machine learning algorithms enable the analysis of large datasets and the identification of patterns that are not detectable using traditional analytical methods.

Modern information technologies are therefore a key tool for improving the efficiency of production and organisational management in the food industry. They enable process automation, data integration, resource optimisation and enhanced competitiveness. The successful implementation of IT requires a strategic approach, investment in staff training and the assurance of cybersecurity. Future development prospects are linked to the use of artificial intelligence, the Internet of Things and cloud technologies, which open up new opportunities for business and society.

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